



## H.R. 6063 – National Aeronautics and Space Administration Authorization Act of 2008

### EXECUTIVE SUMMARY

H.R. 6063 is being considered on the floor under a structured rule on June 18, 2008. This legislation was introduced by Representative Mark Udall (D-CO) on May 15, 2008. The House Committee on Science and Technology ordered the bill to be reported, as amended, by voice vote on June 4, 2008.

H.R. 6063 authorizes \$20.2 billion for NASA in 2009. This amount is \$2.6 billion over the President's requested budget, and reflects a \$1.5 billion increase over the 2008 authorization level. This includes an additional \$1 billion to accelerate development of the shuttle replacement system in order to minimize U.S. reliance on - and cash payments to - Russia for access to the International Space Station from 2010-2015. NASA was last authorized by the NASA Authorization Act of 2005 (P.L. 109-155).

In markup, Committee Republicans stressed that Section 526 of the Energy Independence and Security Act of 2007 (P.L. 110-140) prevented federal agencies from purchasing alternative fuels, thus preventing agencies from freeing up conventional fuels (i.e., petroleum derived) for purchase by the American public. Two amendments were offered by Rep. Gingrey to exempt NASA, but were voted down by Committee Democrats.

According to the Statement of Administration Policy, the Administration strongly opposes the bill, arguing that it "mandates specific Space Shuttle flights that greatly threaten NASA's ability to retire the Shuttle in 2010, an action that is critical to implementing the President's Vision for Space Exploration," among other concerns including the increased authorization level.

The Congressional Budget estimates that implementing H.R. 6063 "would cost \$20.1 billion over the 2009-2013 period."

### FLOOR SITUATION

H.R. 6063 is being considered on the floor under a structured rule. The Rule:

- Provides one hour of general debate equally divided and controlled by the Chairman and Ranking Member of the Committee on Science and Technology.
- Waives all points of order against consideration of the bill except for clauses 9 and 10 of rule XXI (regarding earmark disclosure).
- Provides that the amendment in the nature of a substitute recommended by the Committee on Science and Technology shall be considered as an original bill for the purpose of the amendment and shall be considered as read.
- Waives all points of order against the amendment in the nature of a substitute except for clause 10 of rule XXI. This waiver does not affect the point of order available under clause 9 of rule XXI.
- No amendments shall be in order except those amendments printed in the Rules Committee report accompanying the resolution.
- Provides that the amendments made in order may be offered only in the order printed in the report, may be offered only by a Member designated in the report, shall be considered as read, shall be debatable for the time specified in the report equally divided and controlled by the proponent and an opponent, shall not be subject to amendment, and shall be subject to a demand for division of the question in the House or in the Committee of the Whole.
- Waives all points of order against the amendments printed in the report except for clauses 9 and 10 of rule XXI.
- Provides one motion to recommit with or without instructions.



# LEGISLATIVE DIGEST

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- Provides that, notwithstanding the operation of the previous question, the Chair may postpone further consideration of the bill to a time designated by the Speaker.

This legislation was introduced by Representative Mark Udall (D-CO) on May 15, 2008. The House Committee on Science and Technology ordered the bill to be reported, as amended, by voice vote on June 4, 2008. On June 12, 2008, the House began consideration of H.R. 6063 and agreed to several amendments, as noted below.

H.R. 6063 is expected to be considered on the floor of the House on June 18, 2008.

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## SUMMARY

Authorization of Appropriations: H.R. 6063 authorizes \$20.2 billion for NASA in 2009. This amount is \$2.6 billion over the President's requested budget, and reflects a \$1.5 billion increase over the 2008 authorization level. The bill includes the following authorization levels:

- \$4.9 billion for Science (\$1.5 billion for Earth Science, \$1.5 billion for Planetary Science, \$1.3 billion for Astrophysics and \$640 million for Heliophysics);
- \$853 million for Aeronautics;
- \$3.9 billion for Exploration;
- \$128 million for Education; and
- \$6 billion for Space Operations. This includes a \$150 million increase for the Alpha Magnetic Spectrometer (AMS) mission and a \$100 million increase for International Space Station research utilization.

Earth Science: H.R. 6063 requires the National Academies to provide a study within 18 months regarding the most appropriate governing structure for U.S. Earth Observation programs. The bill also directs the Director of the Office of Science and Technology Policy to develop a process for federal agencies to transition NASA earth science missions into operational status.

The bill also reauthorizes the development of the Glory mission (a remote-sensing Earth-orbiting observatory) and requires the NASA Administrator to report to Congress with a new Baseline Report on the mission within 90 days of enactment.

Aeronautics: The legislation requires the Administrator to establish a research program with industry to collect data on sonic booms to develop standards for overland commercial supersonic flights. H.R. 6063 also directs the Administrator to have the National Research Council conduct an independent review of NASA's aviation safety research programs.

H.R. 6063 requires the Administrator to establish a research initiative to assess the impact of aviation on the climate. This provision also directs the Administrator to develop an initiative to reduce greenhouse gas emissions of commercial aircraft and reduce aircraft noise levels on takeoff and airport approach.

The bill establishes a joint Aeronautics Research and Development Advisory Committee to make recommendations regarding the coordination of research and development activities between NASA and the FAA. This Committee will be made up of five members selected by the Administrator and five members selected by the Chair of the Federal Aviation Administration's Research, Engineering, and Development Advisory Committee (REDAC). H.R. 6063 also requires NASA to award grants to one or more higher education institutions to establish at least one Center for Research on Aviation Training, under current law NASA "may" award these grants.

International Exploration Initiative: H.R. 6063 requires the Administrator to ensure that the lunar exploration program be designed and implemented so that it may meet future requirements for utilization



beyond the Moon. The bill further directs NASA to make no plans to require a lunar outpost to be occupied to maintain its viability.

The bill requires the Administrator to establish long-term exploration R&D that is not tied to specific flight projects. The funding goal for this initiative is at least ten percent of the Exploration Systems Mission Directorate's budget.

Space Science: H.R. 6063 directs the Administrator to establish a cross-Directorate technology development program for space and Earth science within the Science Mission Directorate, with a funding goal of five percent of that Directorate's budget.

The bill also reaffirms Congressional support for robotic exploration of Mars, and further expresses the sense of Congress that outer solar system planets can offer knowledge about the formation and evolution of the solar system and the potential for conditions conducive to life beyond Earth.

The Administrator must arrange for an independent external assessment to identify the primary causes of cost growth in science spacecraft mission classes, and make recommendations as to what changes should be made to contain costs. Within 15 months of enactment, such report will be submitted to Congress.

Space Operations: H.R. 6063 directs the Administrator to ensure that the International Space Station remains a viable and productive facility for potential American utilization through at least 2020. Under this provision, the Administrator is also required to develop a research management plan for the ISS.

This legislation establishes that the Utilization flights ULF-4 and ULF-5 are part of the Space Shuttle baseline flight manifest and must be flown prior to the retirement of the Space Shuttle in 2010. These flights do not currently have scheduled launch dates.

The Space Shuttle must be retired following completion of the baseline flight manifest, expected to occur in 2010. H.R. 6063 directs the Administrator to establish an office within NASA's Office of Human Capital to assist local communities affected by the termination of the Space Shuttle Program.

Near Earth Objects: The bill expresses Congressional support for NASA to detect and track the physical characteristics of near-Earth objects (NEOs) equal to or greater than 140 meters in diameter. H.R. 6063 requires the Director of the Office of Science and Technology Policy to develop a policy for notifying federal agencies and emergency response institutions in the case of an imminent NEO threat. The NASA Administrator is also to maintain a planetary radar comparable to that of the NASA Deep Space Network Goldstone facility.

Commercial Initiatives: H.R. 6063 expresses the sense of Congress that the commercial sector can make significant contributions to NASA's space exploration program. NASA is directed to make use of U.S. commercially provided ISS crew transfer and crew rescue services to the maximum extent practicable, as well as other commercially available space services. H.R. 6063 directs NASA to enter into a crew transportation services contract with a commercial provider if it demonstrates the ability to provide ISS crew transfer in accordance with safety requirements. \$50 million is authorized for 2009 and \$50 million is authorized for the provision of docking adaptors to be made available to the commercial crew providers selected to service the International Space Station.

Revitalization of NASA Institutional Capabilities: H.R. 6063 requires the Comptroller General to review the information security controls at NASA and to report to Congress within one year. The Administrator is to ensure that NASA Centers receive adequate and regular maintenance and upgrades. This provision also arranges for an independent external review of the quality of NASA's laboratories.



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Other Provisions: This legislation requires an assessment within 9 months of enactment of current export control policies on the U.S. aerospace industry and its competitiveness in global markets. H.R. 6063 also amends the 2005 NASA Authorization Act (P.L. 109-155) to permit awards of up to \$50 million for innovation prizes, the current authorized prize level being \$10 million. NASA is also directed to contract with an organization to carry out a program to facilitate knowledge technology transfer, technology assistance from NASA Centers to small businesses and report to Congress annually on program highlights. \$4 million per year is authorized for this purpose.

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## BACKGROUND

Created in 1958, NASA is the federal agency primarily responsible for the United States' public space program and aerospace research. The agency was established largely in response to the launch of the Soviet satellite *Sputnik* in 1957. The current NASA Administrator is Michael D. Griffin, who supervises about 17,000 employees. NASA was most recently authorized by the NASA Authorization Act of 2005 (P.L. 109-155).

The International Space Station (ISS) is a research facility under construction in space since 1998. The ISS is a joint project between space agencies of the United States, Russia, Japan, Canada and eleven European nations. The ISS has been continuously staffed with a human presence since 2000.

The Administration's 2009 budget requested \$18.2 billion for NASA. H.R. 6063 authorizes appropriations of \$20.2 billion for NASA. This includes an additional \$1 billion to accelerate development of the Shuttle follow-on Orion and Ares launch system. The Administration plans a five year gap in U.S. access to space between the retirement of the Space Shuttle in 2010 and the expected arrival of Orion and Ares in 2015. This accelerated development funding is intended to reduce American dependence on Russia for access to the ISS. According to Science and Technology Committee Republicans, NASA has already agreed to pay Russia \$760 million for access, and this cost potentially could rise to \$2.8 billion during the five year gap period.

In markup, Committee Republicans stressed that Section 526 of the Energy Independence and Security Act of 2007 (P.L. 110-140) prevented federal agencies from purchasing alternative fuels, thus preventing agencies from freeing up conventional fuels (i.e., petroleum derived) for purchase by the American public. Two amendments were offered by Rep. Gingrey (R-GA) to exempt NASA, but were voted down by Committee Democrats. NASA has experienced a 400 percent increase in fuel costs over the past five years, according to Committee Republicans.

[National Aeronautics and Space Administration \(NASA\) website](#)

[International Space Station website](#)

[Office of Science and Technology Policy website](#)

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## AMENDMENTS MADE IN ORDER

- 1) Representative Bart Gordon (D-TN): Includes a provision related to coordination with the FAA on sonic boom research. It also replaces Secs. 305 and 306 with equivalent language from Secs. 903 and 905 respectively of the House-passed FAA Reauthorization, H.R. 2881. It adds suborbital reusable launch vehicles to the list of suborbital science research platforms. The amendment includes a sense of Congress on the value of NASA's EarthKam and robotics competitions for inspiring students. It also includes sense of Congress language urging NASA to use entrepreneurial companies to conduct appropriate R&D and seek ways to ensure that firms that rely on fixed price proposals aren't disadvantaged. The amendment also includes NASA workforce-related provisions,



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including an extension of the RIF moratorium, a limit on the use of term positions in FY 2009, and a temporary continuation of coverage of health benefits.

*\*\* This amendment was agreed to by voice vote on June 12, 2008.*

- 2) Representative Dana Rohrabacher (R-CA): Expresses the sense of Congress that the U.S. should seek to obtain cooperation from other nations in discovering and monitoring near-Earth asteroids.  
*\*\* This amendment was agreed to by voice vote on June 12, 2008.*
- 3) Representative David Wu (D-OR): Encourages the United States to lead confidence building measures that advance the long-term initiative for international cooperation.  
*\*\* This amendment was agreed to by voice vote on June 12, 2008.*
- 4) Representative David Wu (D-OR): Expresses the sense of Congress that NASA should not dilute, distort, suppress, or impede scientific research or the dissemination thereof.  
*\*\* This amendment was agreed to by voice vote on June 12, 2008.*
- 5) Representative Nick Lampson (D-TX): Exempts NASA from Section 526(a) of the Energy Independence and Security Act of 2007 if the contract does not specifically require the contractor to provide an alternative or synthetic fuel or fuel from a noncontroversial petroleum source, and the contract does not provide incentives for a refinery upgrade or expansion to allow a refinery to use or increase its use of fuel from a nonconventional petroleum source.
- 6) Representative Michael Arcuri (D-NY): Amends Title IV, Section 407 to require NASA to examine the feasibility of contracting non-federal actors to disseminate images and multi-media records delivered from space to the public as part of NASA's participatory exploration technology plan. Additionally, the amendment would require NASA to employ a transparent bidding process to award any such contracts, pursuant to U.S. law.  
*\*\* This amendment was agreed to by voice vote on June 12, 2008.*
- 7) Representative Peter DeFazio (D-OR) REVISED: Requires CBO to update their report from 2004 on the budgetary analysis of NASA's Vision for the Nation's Space Exploration Program. This report is to be completed in 6 months.  
*\*\* This amendment was agreed to by voice vote on June 12, 2008.*
- 8) Representatives Jane Harman (D-CA)/ Vernon Ehlers (R-MI) REVISED: Expresses the sense of Congress that NASA should work with other government agencies and the aerospace industry to develop and implement policies to sustain and expand the aerospace industry workforce.  
*\*\* This amendment was agreed to by voice vote on June 12, 2008.*
- 9) Representative Bruce Braley (D-IA): Directs NASA to prioritize any existing cooperatives with the National Oceanic Atmospheric Administration (NOAA) that are related to the study of tornadoes and tornado force winds with the goal of determining the nation's ability to predict tornado events. The amendment would also require NASA to examine if there are other areas where NASA can work with NOAA in the area of tornado research.  
*\*\* This amendment was agreed to by voice vote on June 12, 2008.*
- 10) Representative Paul Hodes (D-NH) REVISED: Establishes a scholarship program in honor of Christa McAuliffe, a teacher from Concord, New Hampshire who died in the 1986 Challenger Space Shuttle disaster. The scholarship would go to women pursuing degrees in mathematics, science, and engineering.





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- 11) Representative John Yarmuth (D-KY): Requires NASA to respond to recommendations in recent reports of the Government Accountability Office and the National Academy of Sciences to ensure the public has access to correct and timely research and data on global warming.

*\*\* This amendment was agreed to by voice vote on June 12, 2008.*

- 12) Representative Sheila Jackson-Lee (D-TX) REVISED: Clarifies that the NASA Outreach and Technology Assistance Program will include small, minority-owned, and women-owned businesses. It would also give preference, in selection for the program, to socially and economically disadvantaged small business concerns, small business concerns owned and controlled by service-disabled veterans, and HUBZone small business concerns.

*\*\* This amendment was agreed to by voice vote on June 12, 2008.*

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## ADDITIONAL VIEWS

### Committee on Science and Technology Ranking Member Ralph Hall (R-TX):

"H.R. 6063 is a one year bill that demonstrates Congress' commitment to maintain a strong and vital space program and will serve as a signal to a new Administration that NASA has deep support within Congress...Once the Shuttle is retired at the end of this decade, our country will have to buy seats from the Russians – for as long as five years – to assure a U.S. presence on the International Space Station. Our payments for rides on their Soyuz spacecraft have not yet been negotiated, but it will be expensive, and sadly, we'll be making these purchases at a time when NASA will be laying off thousands of engineers and technicians from the Shuttle program. In an effort to minimize our reliance on the Russians, this bill authorizes an additional \$1 billion to speed up development of the new Constellation system. This additional investment is more than justified." ([Opening Statement, 6/4/2008](#))

### Statement of Administration Policy:

"The Administration supports maintaining a strong national civil space science and aeronautics enterprise and is committed to advancing the quest for new knowledge, discovery, and exploration that is embodied in NASA programs and activities. However, the Administration strongly opposes H.R. 6063 because it mandates specific Space Shuttle flights that greatly threaten NASA's ability to retire the Shuttle in 2010, an action that is critical to implementing the President's Vision for Space Exploration. In addition, the Administration has other serious objections to several provisions of H.R. 6063 that must be satisfactorily addressed prior to final congressional action on reauthorization legislation." ([Statement of Administration Policy, 6/10/08](#))

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## COST

The Congressional Budget Office (CBO) estimates that implementing H.R. 6063 "would cost \$20.1 billion over the 2009-2013 period."

[Full CBO Cost Estimate](#)

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## STAFF CONTACT

For questions or further information contact Adam Hepburn at (202) 226-2302.